

What is claimed is:

- 10056614-020602
1. A process for producing a toner for developing electrostatic image comprising an agglomerate step wherein a dispersion liquid containing at least primary polymer particles and colorant particles is stirred in a stirring tank to agglomerate the particles to thereby obtain agglomerate of the particles and an aging step wherein the resultant agglomerate of the particles is kept at a temperature higher than the glass transition temperature of the primary polymer particles by 10°C or more for a predetermined period of time to thereby fuse the particles, wherein the concentration of solid content C1 in the agglomerate step is 10 to 40% by weight, and the concentration of the solid content C2 in the aging step is in the range of $0.3C1 \leq C2 \leq 0.8C1$.
2. The process for producing a toner for developing electrostatic image as claimed in claim 1, wherein water is mixed upon or after completion of the agglomerate step.
3. The process for producing a toner for developing electrostatic image as claimed in claim 1, wherein the agglomerate step and the aging step are conducted in the same stirring tank.
4. The process for producing a toner for developing electrostatic image as claimed in claim 2, wherein water is mixed before the temperature of the dispersion liquid reaches $T_g + 10^\circ\text{C}$.
5. The process for producing a toner for developing

10066544-020602

electrostatic image as claimed in claim 1, wherein water is mixed together with an agglomerate terminator upon completion of the agglomerate step.

6. The process for producing a toner for developing electrostatic image as claimed in claim 1, wherein the primary polymer particles are those obtained by emulsion polymerization.

7. The process for producing a toner for developing electrostatic image as claimed in claim 6, wherein the primary polymer particles are those obtained by emulsion polymerization using a particulate wax as a seed.

8. The process for producing a toner for developing electrostatic image as claimed in claim 5, wherein the primary polymer particles obtained by emulsion polymerization contains 1000 to 3000 ppm, based on the polymer component therein, of residual monomers, and a pyrolytic free radical initiator is added to the dispersion liquid containing agglomerate of the particles in the aging step.

9. The process for producing a toner for developing electrostatic image as claimed in claim 8, wherein the dispersion liquid containing the agglomerate of the particles to be subjected to the aging step contains 1000 to 3000 ppm, based on the polymer component therein, of residual monomers.

10. The process for producing a toner for developing electrostatic image as claimed in claim 1, wherein the

10066614-020602

toner has a volume average particle size of 3 to 12 μm and a ratio of the volume average particle size DV to number average particle size DN, DV/DN, of 1.2 or less.

11. The process for producing a toner for developing electrostatic image as claimed in claim 1, wherein a particulate resin is added to the dispersion liquid containing the agglomerate of the particles before or during the aging step to thereby adhere or fix the particulate resin to the agglomerate of the particles.

12. The process for producing a toner for developing electrostatic image as claimed in claim 7, wherein the toner contains residual monomers in an amount of 100 ppm or less.

13. The process for producing a toner for developing electrostatic image as claimed in claim 1, wherein the toner has a storage modulus G' and a loss modulus G'' at 200°C of 400 Pa or more with respect to dynamic viscoelasticity.

14. The process for producing a toner for developing electrostatic image as claimed in claim 1, wherein at least either of heating and addition of an electrolyte is conducted in the agglomerate step.

15. The process for producing a toner for developing electrostatic image as claimed in claim 14, wherein a salt of a trivalent metal is added in the agglomerate step.

16. The process for producing a toner for developing electrostatic image as claimed in claim 15, wherein the

salt of a trivalent metal is added, in the agglomerate step, in an amount of 0.05 to 50 parts by weight per 100 parts by weight of the solid content of the dispersion liquid.

10066614.020602